FOGELS, E. (Riga)

On the abstract theory of primes. Pt.2. Acta arithmetica 10 no.4:337-358 '65.

1. Submitted January 13, 1964.

FOGELSON, B. A. TA 12T87

USSR/Voltage - Measurements Mar 1946
Currents, Electric - High frequency

"Measurements of High-frequency Voltage," B. A. Fogelson, 6 pp

"Zhur Tekh Fiz" Vol XVI, No 3

Schematic diagram and connection diagram, with two characteristic curve graphs, of subject apparatus.

12T87

Gorkiy Physico-Tech Sci Res Inst

ФОГЕЛЬСОН, Б. А.

PHASE I BOOK EXPLOITATION 736

Fogel'son, Boris Aronovich

Volnovody (Wave Guides) Moscow, Voyen. izd-vo M-va obor. SSSR, 1958. 123 p. (Series: Radiolokatsionnaya tekhnika) Number of copies printed not given.

Ed.: Vladimirov, V.T., Lieutenant Colonel; Tech. Ed.: Sribnis, N.V.

PURPOSE: This booklet is addressed to officers attached to radio communications units and in general to officers working with radio facilities. It may also prove useful to others who wish to familiarize themselves with the operation of individual radar units and components.

COVERAGE: The booklet is one of a series published by the Military Publishing House and entitled Radiolokatsionnaya Tekhnika (Radar Technique). A list of the titles already published in

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this series and of those to be published is given on the inside back cover. [A translation of the titles of this series is given below, following the Table of Contents.] The booklet gives a description and an explanation of the physical processes taking place in waveguides during the transmission of electromagnetic energy. This description is based on the physical implications of the Maxwell equations only. Numerous examples are given of basic component design of radar waveguide systems. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

KALASHNIKOV, Anatoliy Mikhaylovich, mayor; SLUTSKIY, Veniamin Zakharovich; FOGEL'SON, B.I.; MUNVEZ-FRENKEL', I.Z.; GAYEVICH, V.N., insh.-podpolkovnik; obshchiy red.; TIKHONOV, S.N., insh.-polkovnik, red.; SOKOLOVA, G.F., tekhn.red.

[Principles of radio engineering and radar] Osnovy radiotekhniki i radiolokatsii. Moskva, Voen.izd-vo M-va obor. SSSR. Vol.2. 1959. 375 p. (MIRA 12:6)
(Radar) (Radio)

SLUTSKIY, Veniamin Zakharovich; FOGEL'SON, Boris Il'ich; LEVICHEV, Vladimir Grigor'yevich; YAGODIN, Oleg Gavrilovich; Prinimali uchastiye MUNVEZ-FRENKEL, I.Z.; STEPUK, Ya.V.; MATLIN, I.I., red.; SOLOMONIK, R.L., tekhn. red.

[Fundamentals of radar and radio engineering; display units, rectifiers, and transistor devices] Osnovy radiotekhniki i radiolokatsii; indikatory, vypriamiteli i poluprovodnikovye pribory. By V.Z.Slutskii i dr. Moskva, Voen.izd-vo M-va oborony SSSR, 1961. 355 p. (MIRA 14:12)
(Radar) (Radio—Equipment and supplies)

KALASHNIKOV, Anatoliy Mikhaylovich; SLUTSKIY, Veniamin Zakharovich; Prinimali uchastiye: FOGEL'SON, B.I.; MUNVEZ-FRENKEL, I.Z., GAYEVICH, V.N., red.; TIKHONOV, S.N., inzh.-polkovnik, red.; KOKINA, N.N., tekhn. red.

[Principles of radar and radio engineering; vacuum- tube devices and pulse techniques]Osnovy radiotekhniki i radiolokatsii; elektrovakuumnye pribory i impul'snaia tekhnika. Izd.2., perer. Moskva, Voenizdat, 1962. 385 p. (MIRA 15:10)

(Radio) (Radar) (Pulse techniques (Electronics))

LEVICHEV, Vladimir Grigor'yevich; STEPUK, Yakov Vasil'yevich; FUGEL'SON, Boris Il'ich; Prinimal uchastiye KALASHNIKOV,A.M.; MATLIN,I.L., red.; SOLOMONIK,R.L., tekhn.red.

[Prinicples of radio engineering and radar; radio transmitting and receiving devices]Osnovy radiotekhniki ; radioperedaiushchie i radiopriemnye ustroistva. Moskva, Voenizdat, 1962. 494 p. (MIRA 16:1)

(Radio) (Radar)

FOGEL'SON, B.I. PHASE I BOOK EXPLOITATION SOV/6294

Levichev, Vladimir Grigor'yevich, Yakov Vasil'yevich Stepuk and Boris Il'ich Fogel'son.

Osnovy radiotekhniki i radiolokatsii; radioperedayushchiye i radiopriyemnyye ustroystva (Fundamentals of Radio Engineering and Radar; Radio Transmitting and Receiving Devices). Moscow, Voyenizdat M-va obor. SSSR, 1962. 494 p. 60,000 copies printed.

Ed.: I. I. Matlin; Tech. Ed.: R. L. Solomonik.

PURPOSE: This book is intended for students in schools of Radio Engineering who are taking courses in Radio Engineering and Radar. It should also be useful to military personnel concerned with the operation of radio engineering equipment, as well as to those students in civil schools studying these subjects.

COVERAGE: The book describes radio transmitting and radio receiving systems with emphasis on the physical aspect of the phenomena

Card 1/15 2

taking place. The mathematics used in the volume is, on the whole, at the level of secondary school curricula. Sections 1, 2, 3 and 11 of Ch. I and Ch. II were written by V. C. Levichev, sections 6 and 7 of Ch. I by Ya. V. Stepuk, sections 4, 8, 9 and 10 of Ch. I by B. I. Fogel'son, and section 5 of Ch. I by A. M. Kalashnikov. There are no references.

TABLE OF CONTENTS:

LEVICHEV, Vladimir Grigor'yevich; STEPUK, Yakov Vasil'yevich; FOGEL'SON, Boris Il'ich. Prinimal uchastiye KALASHNIKOV, A.M.; VLADIMIROV, V.T., red.

[Principles of radio engineering and radar; radio transmitting and receiving systems] Osnovy radiotekhniki i radiolokatsii; radioperedaiushchie i radiopriemnye ustroistva. Izd. 2., perer. Moskva, 1965. 583 p. (MIRA 18:5)

L 26375-66 EWT(d)/FSS-2

ACC NR: AM5020529 Monograph UR/

Levichev, V. G.; Stepuk, Ya. V.; Fogel'son, B. I.

Fundamentals of radio engineering and radar; radio transmitters and receivers (Osnovy radiotekhniki i radiolokatsii; radioperedayushchiye i radiopriyemnyye ustroystva) 2d ed., rev. Moscow, Voyenizdat M-va obor. SSSR, 1965. 583 p. illus. 47,000 copies printed.

TOPIC TAGS: radio transmitter, radio receiver, radio transmitter theory, radio receiver theory

PURPOSE AND COVERAGE: This textbook is intended for students in radio engineering schools specializing in radio communications and radar. It may also be of interest to military officers engaged in the operation and maintenance of radio-communication, radar, and electronic equipment as well as to students in civilian radar and radio schools. This textbook is one of four volumes on the subject "Principles of radio engineering and radar". Radio transmitting and receiving equipment are covered in this volume. Considerable attention is paid to the physical side of phenomena occurring in the processes of transmission and reception. Ch. I., section 1, 2, 3, and 12 and Ch. II were written by V. G. Levichev; Ch. I sections 6, 7, and 8, by Ya. V. Stepuk; sections 4, 9, 10 and 11 by B. J. Fogel'son; and Ch. I section 5 by A. M. Kalashnikov. There are no references.

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L 26375-66

ACC NR: AM5020529

0

TABLE OF CONTENTS [abridged]:

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7. Frequency conversion -- 347
8. Intermediate-frequency amplifiers -- 385
9. Low-frequency amplifiers -- 401
10. Lf power amplifiers -- 417
11. Negative feedback in amplifiers -- 432
12. Video amplifiers -- 455
13. Terminal stage of a video amplifier -- 471
14. Reception of frequency-modulated oscillations -- 483
15. Automatic gain control -- 499
16. Automatic frequency control -- 516
17. Radio-receiver circuits -- 546

SUB CODE: 09, 17/ SUBM DATE: 25Mar65/

Card 3/3 dd

FOGEL'SON, B.A.; SHAROGORODSKIY, S.G., red.; MURASHOVA, L.A., tekhn. red.

[Gas-discharge devices] Gazorazriadnye pribory. Moskva, Voenizdat, 1963. 62 p. (MIRA 16:7)
(Electron tubes)

FOGEL'SON, I.B.

Temperature measurement by germanium triodes. Prib. i tekh. eksp. 9 no.1:227 Ja-F '64. (MIRA 17:4)

1. Ob"yedineniye elektronnogo priborostroyeniya "Svetlana".

GORELIK, L. S.; FOGEL'SON, I. B.

Using roide temperature-sensitive pickups for measuring temperatures. Priborostroenie no. 4:29-30 Ap '64. (MIRA 17:5)

ACCESSION NR: AP4043568 S/0146/64/007/004/0143/0149

AUTHOR: Fogel'son, I. B.

TITLE: Operation of a transistor as a thermosensitive element

SOURCE: IVUZ. Priborostroyeniye, v. 7, no. 4, 1964, 143-149

TOPIC TAGS: transistor, transistorized thermometer

ABSTRACT: A simple transistor circuit similar to the common-collector amplifier stage is suggested for measuring temperature, and the theory of its operation is presented. Analytical expressions are developed for current-voltage characteristics with an allowance for the generation and recombination of minority carriers in the base and the emitter efficiency. Ge transistors similar to the P-407 type but with a current gain over 200 were tested for their current-voltage and load characteristics within 0—100C. Emitter-voltage values as a function of temperature, for various load resistances, are tabulated.

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ACCESSION NR: AP4043568

Commercial P-13 — 16, P-12, P-25 — 26, P-406 — 407 transistors can be used as thermometers. Their higher sensitivity, better reproducibility, circuit simplicity, and reliability are seen as advantages of transistorized thermometers as compared to thermistors. Orig. art. has: 4 figures, 14 formulas, and 1 table.

ASSOCIATION: Agrofizicheskiy nauchno-issledovatel'skiy institut (Scientific Research Institute of Agrophysics)

SUBMITTED: 09Dec63 ENCL: 00

SUB CODE: IE NO REF SOV: 002 OTHER: 002

Card 2/2

AUTHOR: Fogel'son, I. B.

TITLE: Measuring temperature by silicon transistors

SOURCE: Pribory* i tekhnika eksperimenta, no. 4, 1964, 194

TOPIC TAGS: transistor, silicon transistor, temperature measurement

ABSTRACT: The results of an investigation of p-n-p P104—106 and n-p-n P101—103 alloy-junction silicon transistors functioning as thermometers are briefly described. The above transistors as well as specially selected others of the same type but having a higher (over 50) current gain were tested at 293—430K, as a rated temperature, 423K was selected. An empirical formula for the emitter voltage expressed in terms of temperature and transistor parameters is suggested (applicable to the above Soviet-made types). Orig. art. has: 3 formulas.

ASSOCIATION: Ob"yedineniye elektronnogo priborostroyeniya "Svetlana" ("Svetlana" Electronic Device Manufacturing Combine)

SUBMITTED: 31Jul63 ENCL: 00

SUB CODE: EC NO REF SOV: 001 OTHER: 001

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EWT(d)/EWT(m)/EEC(k)-2/EEC-4/EWP(t)/EWT [illegible] JD

ACCESSION NR: AP5004606 S/0115/64/000/012/0015/0019

AUTHOR: Fogel'son, I. B.

TITLE: Temperature measurements by means of Ge transistor thermal detector

SOURCE: Izmeritel'naya tekhnika, no. 12, 1964, 15-19

TOPIC TAGS: thermal detector, transistor thermal detector, germanium transistor/ transistor P407

ABSTRACT: In this investigation of Ge transistor thermal detectors, the short-circuit current of the emitter junction served as the main parameter on which [illegible] for the analytical dependence of emitter voltage on temperature were [illegible] theoretical calculations were verified [illegible] measurements with [illegible] of [illegible] gain in common emitter [illegible] [illegible] at 150, base resistivity, [illegible] [illegible] transistor thermal detectors are suitable for measuring temperature [illegible] the range [illegible] +80 to -183C with a mean accuracy of 0.8%. Orig. art. has: 3 figures, 17 formulas, and 2 tables. [DW]

ASSOCIATION: none

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L 26333-65

ACCESSION NR: AP5004606

SUBMITTED: 00	ENCL: 00	SUB CODE: TD, EC
NO REF SOV: 001	OTHER: 006	ATD PRESS: 3187

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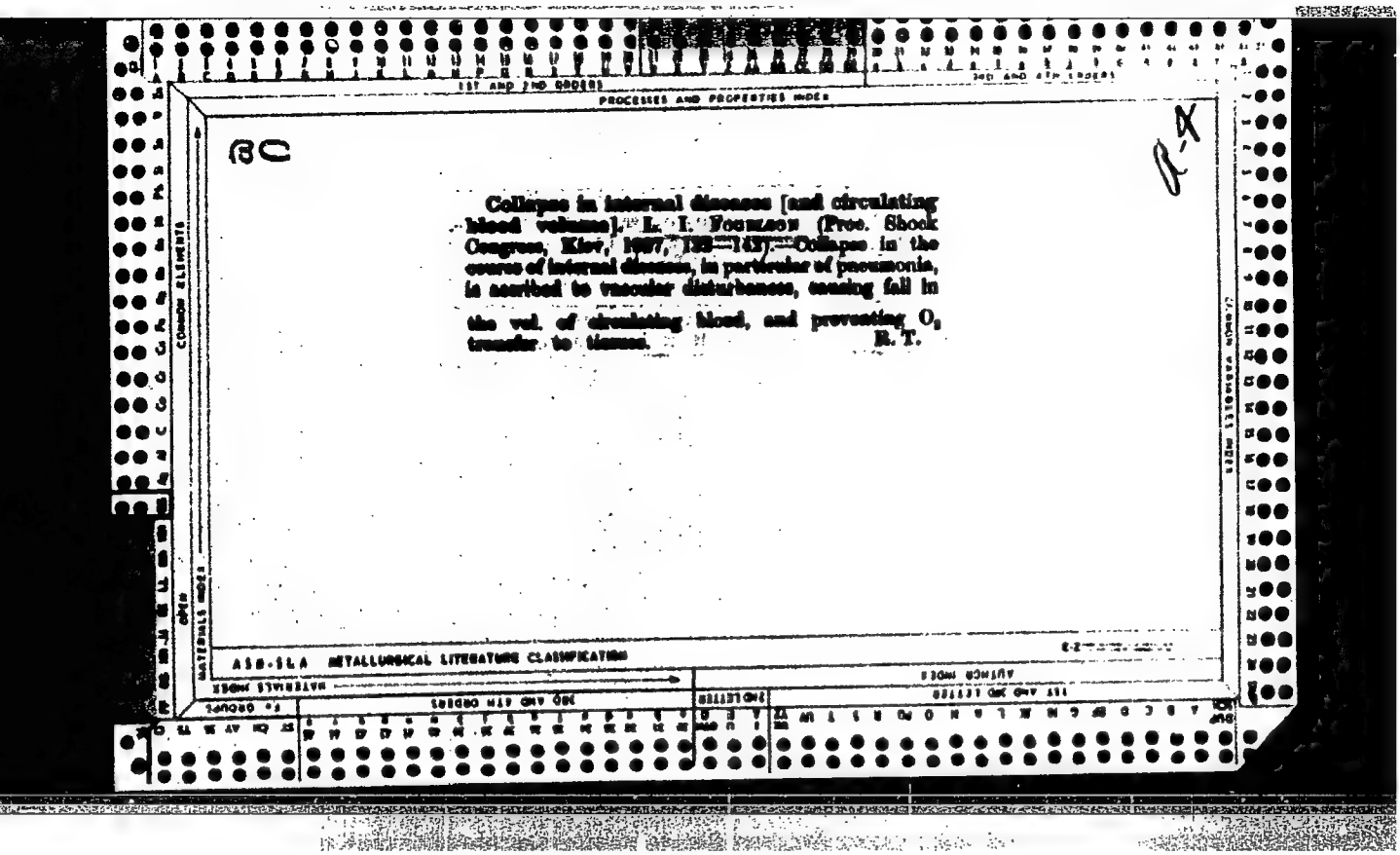

Collapse in internal diseases [and circulating blood volume]. L. I. Fourman (Proc. Shock Congress, Kiev, 1937, 125—142).—Collapse in the course of internal diseases, in particular of pneumonia, is ascribed to vascular disturbance, causing fall in the vol. of circulating blood, and preventing O_2 transfer to tissues. R. T.

FOGEL'SON, L. I.

27353. FOGEL'SON, L. I. Opyt ob"yedineniya terapevticheskoy kliniki s poliklinikoy. Klinich. Meditsina, 1949, No. 8, s 30-33.

So: Letopis' Zhurnal'nykh Statey, Vol. 47, 1948.

FOGEL'SON, L. T.

37594. Trudosposobnost' pri koronarnoy nedostatochnosti (ostroyi khronicheskoy). Novosti Meditsiny, Vyp. 15, 1949. s. 37-41

SO: Letopis' Zhurnal'nykh Statey, Vol. 37, 1949

FOGEL'SON, L. I.

Industrial Hygiene

Working capacity and working conditions in heart diseases. Novosti med. no. 20, 1950.

9. Monthly List of Russian Accessions, Library of Congress, April 1952. Unclassified.

FOGEL'SON, L. I.

Heart - Diseases

Congenital heart diseases. Novosti med. no. 20, 1950.

9. Monthly List of Russian Accessions, Library of Congress, April 1958, Unclassified.

FOGEL'SON, L. I.

Medicine

Diseases of the heart and of the blood vessels. Moskva, Izd-vo Akademii med. nauk SSSR, 1951.

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

FOGEL'SON, L.I.

Principles in the evaluation of working capacity and organization of work in hypertension. Ter. arkh. 23 no.1:100 Jan-Feb 51. (CIML 20:8)

1. Professor.

1. FOGEL'SON, L. I.; IORISH, L. S.

2. USSR (600)

4. Heart--Infarction

7. Regional diagnosis of myocardial infarcts from electrocardiographic data; first communication. Vop. pat. serd. sos. sist. 2 no. 1 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

Fogel'son, L. I.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

Name	Title of Work	Nominated by
Fogel'son, L. I.	"Diseases of the Heart and Blood Vessels"	Ministry of Social Security RSFSR

SO: W-30604, 7 July 1954

FOGEL'SON, L. I.

Working Capacity and Rehabilitation of Persons with Hypertension.

L. I. Fogel'son. (Ter. Arkh.) 26, 46-50, March-April, 1954.

In a series of 980 hypertensive persons of various professions the blood pressure was determined periodically before, during and after daily work.

From the results of this investigation the author concludes as follows. Routine work, involving a moderate degree of physical exertion only and carried out during the morning shift, often led, in mildly hypertensive subjects, to a decrease in blood pressure of about 10 to 30 mm. Hg systolic and 5 to 15 mm. Hg diastolic; but such a decrease was not observed if the work involved nervous tension. In similar circumstances, work during the night shift tended to produce a rise in blood pressure. Nervous and psychological tension tended to aggravate hypertensive disease, as was shown by a comparison of the daily blood pressure readings before and after work. Moderately hypertensive patients were found to be more susceptible to the comparatively slight stress and strain even of routine work. "Negative emotions" experienced during work produced a transient, but considerable, rise in blood pressure. Normal control subjects manifested no changes in blood pressure during a working day.

A. Swan

SO: ABSTRACTS OF WORLD MEDICINE Vol. 16 No. 5

Iz terapevticheskogo otdeleniya (nauchnyy rukovotel' prof. L. I. Fogel'son) TSentral'nogo nauchno-issledovatel'skogo instituta ekspertizy trudosposobnosti i organizatsii truda invalidov.

FOGEL'SON, L., professor

Letter to the editor. Terap. arkh. 26 no.6:92 N-D '54. (MLRA 8:2)
(CARDIOVASCULAR SYSTEM--DISEASES)

FOGEL'SON, L.I.

[Hypertension; determining ability to work and work placement] Gipertonicheskaia bolezn', opredelenie trudosposobnosti i trudoustroistvo. Moskva, Medgiz, 1956. 65 p. (MLRA 10:5)
(HYPERTENSION) (DISABILITY EVALUATION)

FOGEL'SON, L.I., professor (Moskva)

Work capacity and working conditions of patients following myocardial infarct. Klin. med. 34 no.1:29-34 Ja '56. (MLRA 9:5)

1. Iz terapevticheskoy kliniki (zav.-prof. L.I. Fogel'son) TSentral'nogo nauchno-issledovatel'skogo instituta ekspertizy trudosposobnosti i organizatsii truda invalidov (dir.-prof. O.I. Sokol'nikov)

(MYOCARDIAL INFARCTION
work capacity & working conditions following recovery)
(WORK
work capacity & working conditions after myocardial infarct)

MAZO, R.Ye.; FOGEL'SON, L.I., redaktor

[Characteristics of electrocardiograms of healthy children of various ages] Osobennosti elektrokardiogrammy zdorovykh detei raznykh rozrastov. Pod red. L.I.Fogel'sona. Minsk, Gos. izd-vo BSSR, 1957. 104 p. (MIRA 10:7)
(ELECTROCARDIOGRAPHY)

FOGEL'SON, L.I.

[Clinical electrocardiography] Klinicheskaya elektro-kardiografiia. 3-e, dop. i perer. izd. Moskva, Medgiz, 1957. 458 p. (MLRA 10:7)
(ELECTROCARDIOGRAPHY)

Fogel'son, L.

20-2-47/50

AUTHORS: [redacted], V. B., Fogel'son, L. I.

TITLE: On the Possibility to Use an Electric Stimulus in Order to Restore Normal Activity of the Heart in the Case of Flickering of Auricles (O vozmozhnosti ispol'zovaniya elektricheskogo stimula dlya vosstanovleniya normal'noy deyatel'nosti serdtsa pri mertsanii predserdiy)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 2, pp. 331-334 (USSR)

ABSTRACT: According to the conceptions of many researchers the flickering of the auricles and of the chambers are according to their nature closely connected processes which have the same pathophysiological mechanism. Since a strong electric stimulus was successfully used for the restoring of normal activity of the heart in the case of flickering arythmy was raised. This phenomenon was effected in dogs by stimulation of the auricles by an interrupted induction current. In the case of cats for this purpose a 1o% $CaCl_2$.solution was introduced intravenously. In all cases at different points an electrocardiogram was taken. Not in all dogs a relatively constant flickering could be produced. In the case of 7 of 1o it lasted only as long as the current action. In 2 cases of a current amplification in order to obtain a constant flickering also simultaneous flickering of the chambers was found. One succeeded in both cases to restore the normal activity of the

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On the Possibility to Use an Electric Stimulus in Order to Re- 20-2-47/50
store Normal Activity of the Heart in the Case of Flickering of Auricles.

heart by the condenser discharge. The results of the carried out work show a principal possibility of using a strong electric stimulus for the elimination of the flickering of the auricles of warm-blooded animals. The lack of a permanent positive action of a condenser discharge in the case of flickering effected by an injection of the $CaCl_2$- solution is apparently to be traced back to the uninterrupted action of this factor during the electric stimulus. However,too low an intensity of this stimulus is not excluded. There are 3 figures and 8 references 3 of which are Slavic.

PRESENTED: March 18, 1957, by L. S. Shtern, Academician

SUBMITTED: March 6, 1957

AVAILABLE: Library of Congress

Card 2/2

FOGEL'SON, L.I., prof.

Prevention of heart failure. Zdorov'e 5 no.2:13-15 F '59.
(MIRA 12:2)

(HEART FAILURE)

FOGEL'SON, L.I., prof. (Moskva)

Work capacity of patients with coronary insufficiency. Vrach.delo no.12:1241-1247 D '59. (MIRA 13:5)

1. Terapevticheskaya klinika (zav. - prof. L.I. Fogel'son) Tsentral'nogo nauchno-issledovatel'skogo instituta ekspertizy trudosposobnosti invalidov.
(HEART FAILURE) (DISABILITY EVALUATION)

FOGEL'SON, L.I., prof., red.; SOKOL'NIKOV, O.I., red.; GRITCHENKO, N.V., red.; BEL'CHIKOVA, Yu.S., tekhn.red.

[Disability evaluation in internal diseases] Vrachebno-trudovaia ekspertiza pri vnutrennikh boleznlakh. Moskva, Gos.izd-vo med. lit-ry, 1960. 349 p. (MIRA 13:11)
(DISABILITY EVALUATION) (MEDICINE, INTERNAL)

FOGEL'SON L.I., prof.

Disability evaluation in cardiosclerosis of diverse pathogenesis. Sov.med. 24 no.12:20-29 D '60. (MIRA 14:3)

1. Iz terapevticheskoy kliniki (zav. - prof. L.I.Fogel'son) TSentral'nogo nauchno-issledovatel'skogo instituta ekspertizy trudosposobnosti i organizatsii truda invalidov (dir. - prof. D.I.Gritskevich).
(DISABILITY EVALUATION) (HEART--DISEASES)
(MYOCARDIUM)

FOGEL'SON, L.I.

Myocardial infract and work prognosis. Terap.arkh. 32 no.1:11-18 Ja '60. (MIRA 13:10)
(HEART--INFRACTION) (DISABILITY EVALUATION)

FOGEL'SON, L.I., prof.

Following myocardial infarct. Zdorov'e 6 no.6:11-13 Je '60.
(MIRA 13:7)

(HEART--INFARCTION)

FOGEL'SON, L.I.

Treatment of auricular flutter and fibrillation. Klin. med. 38 no. 2:148-151 F '60. (MIRA 14:1)
(ARRYTHMIA)

FOGEL'SON, L.I., prof. (Moskva)

Work capacity in cardiovascular diseases. Klin.med. 38 no.8:60-68 Ag '60. (MIRA 13:11)

1. Iz terapevticheskoy kliniki (zav. - prof. L.I. Fogel'son) Tsentral'nogo nauchno-issledovatel'skogo instituta ekspertizy trudosposobnosti i organizatsii truda invalidov (dir. - prof. D.I. Gritskevich).
(CARDIOVASCULAR SYSTEM—DISEASES) (DISABILITY EVALUATION)

MAZO, Rakhil' Efraimovna; FOGEL'SON, L.I., prof., red.; KHOLYAVSKIY,S., red.; SIDERKO, N., tekhn. red.

[Electrocardiograms of healthy children] Elektrokardiogrammy zdorovykh detei. Minsk, Izd-vo Akad.nauk BSSR, 1961. 197 p. (MIRA 15:1)

(Electrocardiography)

FOGEL'SON, L.I., prof.; SHIK, L.L., prof.; FREYDIN, L.M., dots.; nauchnyy red.; BELYAK, A.S., tekhn. red.

[Diseases of the heart and vessels] Bolezni serdtsa i sosudov. Moskva, Izdatel'skoe biuro tresta "Meduchposobie." Book 1. Atlas. 1961. 283 p. (MIRA 15:3)

(CARDIOVASCULAR SYSTEM--DISEASES)

FOGEL'SON, L.I., prof.

Irregularity of the heart. Zdorov'e 7 no.6:12-13 Je '61. (MIRA 14:7)

(ARRYTHMIA)

FOGEL'SON, L.I., prof.

Prognosis of the working capacity and indications for the rehabilitation of patients with rheumatic heart defects. Vop. revm. 2 no.2:46-49 Ap-Je'62 (MIRA 17:3)

1. Iz terapevticheskogo otdeleniya (zav. - prof. L.I. Fogel'son) TSentral'nogo nauchno-issledovatel'skogo instituta ekspertizy trudosposobnosti i organizatsii truda invalidov) direktor - D.I. Gritskevich).

FOGEL'SON, L.I., prof.

Work prognosis in rheumatic defects of the heart. Kardiologiia 2 no.2:58-64 Mr-Ap '62. (MIRA 15:4)

1. Iz terapevticheskoy kliniki (zav. - prof. L.I.Fogel'son) TSentral'nogo nauchno-issledovatel'skogo instituta ekspertizy trudosposobnosti i trudoustroystva invalidov (dir. - prof. D.I.Gritskevich).
(RHEUMATIC HEART DISEASE) (DISABILITY EVALUATION)

VOLYNSKIY, Z.M., prof.; GILYAREVSKIY, S.A., prof.; GEFTER, A.I., prof.; DEMIN, A.A., prof.; ZELENIN, V.F., prof.; ISTAMANOVA, T.S., prof.; KEDROV, A.A., prof.; MESHALKIN, Ye.N., prof.; KEDROV, A.A., prof.; MESHALKIN, Ye.N., prof.; SAVITSKIY, N.N., prof.; FOGEL'SON, L.I., prof.; KHVILIVITSKAYA, M.I., prof.; LUKOMSKIY, P.Ye., prof., red. toma; MYASNIKOV, A.L., prof., otv. red.; TAREYEV, Ye.M., prof., zam. otv. red.; BAGDASAROV, A.A., prof.[deceased], red.; BARANOV, V.G., prof., red.; VOVSI, M.S., prof., red.[deceased]; IVANOV, V.N., prof., red.[deceased]; KURSHAKOV, N.A., prof., red.; MOLCHANOV, N.S., prof., red.; NESTEROV, A.N., prof., red.; SPERANSKIY, I.I., prof., red. [deceased]; ZAMYSLOVA, K.N., prof., red.; PERCHIKOVA, G.Ye., kand. med. nauk, red.; ERINA, Ye.V., kand. med. nauk, red.; LYUDKOVSKAYA, Yu.S., tekhn. red.; BEL'CHIKOVA, Yu.S., tekhn.red.

[Multivolume manual on internal diseases]Mnogotomnoe rukovodstvo po vnutrennim boleznism. Otv. red. A.L.Miasnikov. Moskva, Medgiz. Vol.1. [Diseases of the cardiovascular system]Bolezni serdechno-sosudistoi sistemy. Red. toma: P.E.Lukomskii i N.N. Savitskii. 1962. 686 p. (MIRA 15:12)

(Continued on next card)

FOGEL'SON, L. I., zasluzhennyy deyatel' nauki, prof.

Eccentric heart. Zdorov'e 8 no.11:19-20 N '62. (MIRA 15:10)

(ARRHYTHMIA)

FOGEL'SON, I.I.

Diagnostic errors and expertise on the working capacity in cardiovascular diseases. Trudy inst. klin. i eksper. kard. AN Gruz. SSR 8:331-335 '63. (MERA 17:7)

1. Iz terapevticheskoy kliniki Tsentral'nogo instituta ekspertizy trudosposobnosti i organizatsii truda invalidov, Moskva.

FOGEL'SON, L.I., prof.

Hypertrophy of the left ventricule in hypertension, its diagnosis and significance in determining the stage of the disease. Kardiologiia 3 no.3:22-27 My-Je'63. (MIRA 16:9)

1. Iz TSentral'nogo nauchno-issledovatel'skogo instituta ekspertizy trudosposobnosti i trudoustroystva invalidov (dir.-prof. D.I.Gritskevich).
(HYPERTROPHY AND DILATATION)
(HYPERTENSION)

FOGEL'SON, Lazar' Izrailevich, zasl. deyatel' nauki RSFSR. Prinimali uchastiye: GONCHAROVA, R.P.; KRASAVINA, G.L.; LEBEDEVA, O.V., kand. med. nauk; NOTKINA, F.Ya., red.

[Work capacity and indications for job placement in diseases of the cardiovascular system; scientific methodological fundamentals] Trudosposobnost' i pokazaniia k trudoustroistvu pri zabolevanii serdechno-sosudistoi sistemy; nauchno-metodicheskie osnovy. Moskva, Meditsina, 1964. 243 p. (MIRA 17:5)

MAZO, Rakhil' Efraimovna; FOGEL'SON, L.I., zasl. deyatel' nauki, prof., red.

[Instrumental methods of heart examination in pediatrics] Instrumental'nye metody issledovaniia serdtsa v pediatrii. Minsk, Nauka i tekhnika, 1964. 349 p. (MIRA 18:1)

FOGEL'SON, L.I.; YAZBURSKIS, B.I.

Radioelectrocardiography as a method of determining cardiac activity during the performance of work. Kardiologiia 4 no.4: 67-73 Jl-Ag '64. (MIRA 19: 1)

1. Terapevticheskaya klinika (zav. - prof. L.I. Fogel'son) TSentral'nogo nauchno-issledovatel'skogo instituta ekspertizy trudosposobnosti i organizatsii truda invalidov (direktor - prof. D.I. Gritskevich), Moskva. Submitted August 10, 1963.

30027
S/020/61/141/001/009/021
B103/B147

15.8620

AUTHORS: Dogadkin, B. A., Tarasova, Z. N., Fogel'son, M. S., and Kashlinskiy, A. I.

TITLE: Interaction of sulfur with rubber under the action of γ- radiation

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 141, no. 1, 1961, 90 - 93

TEXT: The authors studied the interaction of natural-rubber-sulfur (NR + S) mixtures under the action of γ- radiation (dose 6 - 11 Mr) at +20 and -196°C by means of electron paramagnetic resonance (epr). They used a spectrometer with high-frequency modulation at -140 - +20°C. Highly stable radicals were formed by irradiating NR and its mixtures with 2% S; their spectra were equal, their concentration was $(1 - 2.5) \cdot 10^{14}$ mg^{-1}, and after 30 - 45 days it was still $(0.05 - 0.1) \cdot 10^{14}$ mg^{-1}. Besides free alkyl radicals formed during irradiation of NR due to the disruption of an H atom and the rupture of

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the -C-C bonds of the NR chains, radicals of the allyl type are also formed. They are stabilized by the effect of conjugation of the free valency with the adjacent double bond, and are assumed to be long-lived polymer radicals. When irradiated at -196°C, the NR spectrum differs from that of the S + NR mixture. Since each spectrum constitutes a superposition of lines, the existence of several radical types is assumed. The inhibitory effect of sulfur may be ascribed, as in benzene, to the delocalization of an electron in the eight-membered ring of the sulfur molecule. When the samples irradiated at -196°C are heated at room temperature for 1 - 1.5 min, their spectrum becomes equal to that of long-lived radicals formed by irradiation of the same samples at +20°C. Thus, radicals of varying stability are formed by irradiation at -196°C. The short-lived among them live for a few seconds at room temperature. The concentration dropped by gradual heating of the samples (at intervals of 6-7°C) from -196 to +20°C in liquid-nitrogen vapor, and keeping the sample at given temperature for 5 min, as well as cooling to -140°C. On

Interaction of sulfur with...

heating from -196 to -120°C the spectrum was not changed. The range of intense destruction of radicals corresponds to the vitrification range of NR (between -80 and -50°C). The reactivity rapidly increases in the range of the mobility jump of individual links of the molecular chain. Here (as on heating of irradiated NR) only the initial short-lived radicals perish whereas in the S + NR mixture new short-lived radicals with a high g-factor are also formed. This is explained in two ways: (A) At least two new radicals are formed in the mixture, or (B) only one radical with an anisotropic g-factor containing an -S-S group is formed. Since the concentration of newly formed radicals is a function of heating with a maximum at -80°C, it is concluded that at this temperature the ratio of the rate of formation to the rate of destruction of the new radicals is most favorable, effecting a maximum of recordable concentration. For the most distinct additional line characterizing the newly formed radicals, the g-factor is 2.027 ± 0.003. Its value is equal to the one exhibited by sulfur radicals in the melt at 200°C. It is concluded that the new radicals are due to interaction of S_8 molecules with polymer radicals R° of

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NR under the action of γ-rays. Below vitrification temperature, this interaction does not take place. It is based on the rupture of the eight-membered sulfur ring, and can only take place at temperatures permitting the required mobility of NR molecular chains: $R^{\cdot} + S_8 \rightarrow RS_8^{\cdot}$ (1). $RS_8^{\cdot}$ may further decompose with separation of sulfur radicals: $RS_8^{\cdot} \rightarrow RS_{(8-x)}^{\cdot} + S_x^{\cdot\cdot}$ (2). Thus, S radicals are formed due to interaction of polymer radicals with S molecules at temperatures below 0°C. The radicals $RS_{(8-x)}^{\cdot\cdot}$ live longer than polymeric $R^{\cdot}$ radicals whereas $S_x^{\cdot\cdot}$ radicals are more active. The steric structure of rubber is a consequence of the interaction of $R^{\cdot}$ with each other and with rubber molecules. The structure is formed in a temperature range in which, according to the epr, the radicals disappear most quickly when the irradiated NR thaws. S inhibits the formation of polymer radicals during irradiation. The S-containing radicals can be stabilized by formation of cyclic end groups. Also this process reduces the cross links. An interaction of $S_x^{\cdot\cdot}$ biradicals with molecular chains is possible; nevertheless, intramolecular

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Interaction of sulfur with...

cyclic structures may form which do not increase the number of double bonds. Data of isotopic exchange show that polysulfide linear structures S_x ($x>1$) occur in the vulcanizates. These structures increase the static strength of radiation vulcanizates. There are 4 figures and 3 references: 2 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: D. Gardner, G. Fraenkel, J. Am. Chem. Soc., 78, 3279 (1956).

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova (Moscow Institute of Fine Chemical Technology imeni M. V. Lomonosov)

PRESENTED: June 14, 1961, by A. A. Balandin, Academician

SUBMITTED: June 8, 1961

Card 5/5

S/190/62/004/008/010/016
B101/B180

AUTHORS: Tarasova, Z. N., Fogel'son, M. S., Kozlov, V. T., Kashlinskiy, A. I., Kaplunov, M. Ya., Dogadkin, B. A.

TITLE: Epr study of the radiation vulcanization of rubber in the presence of sulfur and hexachlor ethane

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 8, 1962, 1204-1209

TEXT: Recorded epr spectra were used to study the formation of free radicals during the radiation polymerization of natural rubber (NR) and mixtures of NR with 2wt.% sulfur or 10wt.% C_2Cl_6. Irradiation was conducted at -196 - +20°C with Co^{60} at a dose of 6 - 11 Mr. Results:

(1) Long-lived radicals with an initial concentration of $(1\text{-}2.5)\cdot10^{14}$ mg^{-1} form in NR and its mixtures with S or C_2Cl_6 at 20°C and 6-8Mr.

(2) Radicals of different lives form with irradiation at -196°C. Their initial concentrations in NR, NR + C_2Cl_6 and in NR + S are

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$(4.9\pm0.7)\cdot10^{15}$ mg^{-1}, $(11\pm2)\cdot10^{15}$ mg^{-1}, and $(2.6\pm0.6)\cdot10^{15}$ mg^{-1}, respectively. The inhibiting effect of S is due to delocalization of an electron in the S_8 ring. (3) If the NR + C_2Cl_6 sample irradiated at -196°C is slowly brought to room temperature, structuration occurs near the vitrification temperature (-70°C). Short-lived radicals disappear and the concentration of free radicals approaches the room temperature level. (4) Gradual heating of the NR + S sample yields new short-lived radicals with a g factor of 2.027 + 0.003 which is typical of S radicals. The radicals whose concentration reaches a maximum of approximately $6\cdot10^{14}mg^{-1}$ at -80°C are formed by reaction between NR and S, the S_8 ring being ruptured. (5) After irradiation, crystalline C_2Cl_6 showed an intensive epr signal, from which it is assumed that various types of radical are formed. The formation of CCl_3 radicals was confirmed by the analytical detection of chloroform. (6) Structuration of NR irradiated at low temperatures is supported by C_2Cl_6 and impeded by S which increases

Epr study of the radiation ...

the static strength of the radiation vulcanizate. (7) Crystalline S showed only a weak epr signal. There are 5 figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Tire Industry)

SUBMITTED: May 12, 1961

Card 3/3

KOTLYAR, V.N., doktor geol.-miner. nauk, prof., red.; APEL'TSIN, F.Ye., doktor geol.-miner. nauk, red.; YEROFEYEV, B.N., kand. geol.-miner. nauk, red.; LUGOV, S.F., doktor geol.-miner. nauk, red.; FOGEL'MAN, N.A., kand. geol.-miner. nauk, red.; KHRUSHCHOV, N.A., doktor geol.-miner. nauk, red.

[Materials of the Interdepartmental Conference on the Problem "The Ore Potential of Volcanic Formations"] Materialy Mezhvedomstvennogo soveshchaniia po probleme "Rudonosnost' vulkanogennykh formatsii." Moskva, Nedra, 1965. 324 p. (MIRA 18:6)

1. Mezhvedomstvennoye soveshchaniye po probleme "Rudonosnost' vulkanogennykh formatsiy," Moskva, 1963.

KOTOSONOV, N.V.; AVERKIN, Yu.A.; FOGEL'SON, R.L.

Hall pickup as a super-high frequency indicator. Izm.tekh. no.7: 37-38 Jl '62. (MIRA 15:6)

(Frequency measurements)

USSR/Physics - Plastics Mar 51

"Nature of Strong Deformation of High-Molecular Substances in the Vitreous State," Yu. S. Lazurkin, R. L. Fogelson, Inst Phys Problems, Acad Sci USSR

"Zhur Tekh Fiziki" Vol XXI, No 3, pp 267-286

Characteristic of plastics is temp of brittleness. (cf. Boyer and Spenser, "J Applied Phys" 15, 398, 1944; Uberreiter, "J Chem Phys" 18, No 4, 399, 1950). Studies phenomena of forced elasticity of high-mol substances and finds they obey formula: $\tau = \tau_0 \cdot \exp (U - a\sigma)/kT$ giving relation between relaxation time (τ) of elastic deformation and temp (T) and tension (σ).

LC

LEVITSKAYA, M.A.; FOGEL'SON, R.L.

X-ray investigation of diffusion in two thin layers of metal.
Izv.vys.ucheb.zav.; chern.met. no.3:117-121 '60.
(MIRA 13:4)

1. Voronezhskiy gosudarstvennyy universitet.
(Diffusion)
(X rays--Industrial applications)

FOGEL'SON, R.L.

On the duffusion equation. Fiz. tver. tela 2 no.5:903-907 My '60. (MIRA 13:10)

1. Voronezhskiy gosudarstvennyy universitet.
(Diffusion)

9.4177

S/078/62/007/004/014/016
B107/B101

AUTHORS: Ugay, Ya. A., Kotosonov, N. V., Fogel'son, R. L., Tkacheva, G. S.

TITLE: Some properties of Ca_3Sb_2 prepared by the method of S. A. Vekshinskiy

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 4, 1962, 930 - 931

TEXT: The present paper describes the preparation of a thin film (5 - 20μ) of Ca_3Sb_2. The temperature dependence of the specific conductivity was measured (Fig. 2). The compound Ca_3Sb_2 has hitherto not been synthesized, and has only been mentioned by M. Hansen (see below). It was obtained by simultaneous evaporation of Ca and Sb in a vacuum of 10^{-5} mm Hg (method of S. A. Vekshinskiy; Novyy metod metallograficheskogo analiza splavov (A new method of metallographic analysis of alloys), Gostekhizdat, 1944). The vapor was collected by mica foils previously heated to 300°C. The resulting film transmits a narrow stripe of orange-colored light, corresponding to Ca_3Sb_2. The compound can be left in air for a long time.

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Some properties of Ca_3Sb_2...

S/078/62/007/004/014/016
B107/B101

The resistance was measured with electrodes deposited on the foils by the evaporation of antimony. Preliminary experiments had shown that the resistance of antimony was negligible. The resistivity of calcium antimonide at room temperature is 10^4 ohm·cm. The measurements are well reproducible. The distance between the valency band and the conduction band was calculated to be 1.4 ± 0.1 ev. Calcium antimonide is a slightly photoconductive compound. Its photoconductivity is increased by an oxide film which forms when the system is left without further evacuation. There are 2 figures and 7 references: 6 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: M. Hansen. Constitution of Binary Alloys. New York, 1958.

ASSOCIATION: Voronezhskiy gosudarstvennyy universitet (Voronezh State University)

SUBMITTED: February 20, 1961

Fig. 2. Specific conductivity of Ca_3Sb_2 as a function of temperature.

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S/181/62/004/008/034/041
B108/B102

AUTHOR: Fogel'son, R. L.

TITLE: The first diffusion equation ..

PERIODICAL: Fizika tverdogo tela, v. 4, no. 8, 1962, 2269 - 2271

TEXT: Experiments showed that a diffusion equation of the type $j = -\frac{\partial}{\partial x}(Dn)$ does not exactly render what actually happens in diffusion. The true process of diffusion should rather be treated similarly to a viscous flow. It is stated that an equation of the type $j = -L\frac{\partial \mu}{\partial x}$ (μ = chemical potential) is the best rendering of the true process of heterodiffusion. This was also stated by I. E. Reynolds et al. (Acta Metall., 5, 29, 1957). The self-diffusion coefficient D' is then related to the coefficient of heterodiffusion D through the formula $D' = D(1 + \frac{\partial \ln f}{\partial \ln n})$, where f is the coefficient of activity. There is 1 figure.

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S/181/62/004/008/034/041
B108/B102

The first diffusion equation

ASSOCIATION: Voronezhskiy gosudarstvennyy universitet (Voronezh State University)

SUBMITTED: February 7, 1962 (initially),
April 25, 1962 (after revision)

Card 2/2

Investigation of semiconducting phases based on antimony. Ya. A. Ugay.

Semiconducting phases in the system zinc-antimony. Ya. A. Ugay, Ye. M. Averbakh.

[Study and some properties of thin layers of indium phosphide. Ya. Ugay, R. L. Fogel'son, V. V. Lavrov. (Not presented).]

Report presented at the 3rd National Conference on Semiconductor Compounds, Kishinev, 16-21 Sept 1963

L 10005-63 EWT(1)/BDS--AFFTC/ASD/ESD-3--
IJP(C)/TF
ACCESSION NR: AP3003209 S/0115/63/000/006/0041/0042

AUTHOR: Fogel'son, R. L.; Kotosonov, N. V. 58

TITLE: Apparatus for measurement of magnetic field intensity

SOURCE: Izmeritel'naya tekhnika, no. 6, 1963, 41-42

TOPIC TAGS: magnetic field intensity measurement, magnetometer

ABSTRACT: A magnetometer based on the Hall effect is described. The Hall emf on a 15 x 5 x 1 mm Ge strip with a Hall constant of 1.6 x 10 sup 4 cm sup 3/k is measured by the compensation method, with a vibration galvanometer serving as the indicator. The overall measurement range is 1000--30,000 oe. The measurement error of the device does not exceed 1%, and its sensitivity is said to be high. It works on 50-cycle ac, is portable, and can be used for measurements in relatively narrow gaps. Orig. art. has: 1 figure.

ASSOCIATION: none
SUBMITTED: 00 DATE ACQ: 22Jul63 ENCL: 00
SUB CODE: 00 NO REF SOV: 000 OTHER: 001

Card 1/1

ACCESSION NR: AP4041363 S/0048/64/028/006/0998/0999

AUTHOR: Ugay, Ya. A.; Averbakh, Ye. M.; Fogel'son, R. L.; Gol'dfarb, V. A.

TITLE: Some properties of thin indium phosphide layers

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 28, no. 6, 1964, 998-999

TOPIC TAGS: indium, indium phosphide, indium phosphide film, indium phosphide property, film property, film electric conductivity

ABSTRACT: The temperature dependence of electric conductivity of indium phosphide twin films and of their limit of absorption in the longwave range have been investigated. Films were produced by a separate vacuum vapor deposition of components, first of indium and, then of phosphorus, under pressure of about 10^{-5} mm Hg at 400C. Electron diffraction patterns of the films corresponded to those of the InP compound. The temperature dependence of electric conductivity of InP films 0.55—0.06 μ thick was determined at 20—500C. One of the two films investigated was first annealed in vacuum at 250C

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ACCESSION NR: AP4041363

for 3 hr. As shown in the diagram (see Fig. 1 of the Enclosure), the electric conductivity of the films at high temperature is almost identical. The width of the forbidden zone determined from this diagram is 1.42 ev. The width of the forbidden zone determined from the longwave absorption edge was 1.27 ev. The higher value obtained from the temperature dependence of electric conductivity is explained by partial decomposition of indium phosphide at high temperatures. Orig. art. has: 2 figures.

ASSOCIATION: Voronezhskiy gosudarstveny*y universitet (Voronezh State University)

SUBMITTED: 00 ATD PRESS: 3058 ENCL: 01

SUB CODE: SS, IC NO REF SOV: 002 OTHER: 001

Card 2/3

FOGEL'SON, S. B.

PA 53/49T35

USSR/Engineering Jun 49
Dredges
Hydroelectric Stations

"Development of Hydromechanization in the Construction of Hydroelectric Stations of the Ministry of Electric Power Plants," S. B. Fogel'son, Engr, 5 pp

"Gidrotekh Stroi" No 6

In 1949, about 18 million cu m of excavation work must be done, 81% of which will be mechanized. Table shows percent of total excavation work accomplished by hydromechanization at Kama, Ringechaurskiy, and Gor'kiy hydroelectric [illegible]

53/49T35

USSR/Engineering (Contd) Jun 49

stations. Gives characteristics of two types of hydraulic dredges which will be used extensively in future construction work, the 300-40 (12MZ) and the GM (12MZ).

53/49T35

USSR/Engineering - Construction, Jan 53
Hydraulic-Fill Dams

"Hydraulic-Fill Construction of Earthen Dams Without Scaffolding," Engr S. B. Fogel'son, Stalin Prize Laureate

"Mekh Trud i Tyazh Rabot" No 1, pp 28-33

PA 246T35

States that in 1951 - 1952 a group of workers of the Gidromekhanizatsiya Trust of Ministry of Electric Power Stations, USSR worked out and introduced under the guidance of Engr V. A. Platonov the hydraulic-fill-without-scaffolding method of constructing earthen dams. By this method the pulp flows out of the terminal end of the pipe, additional pipe sections being added as the work progresses. On completion of the first layer (15-20 cm thick) of earth the length of the dam, the pipe is progressively shortened by detaching sections as a layer of earth is deposited in the opposite direction. The outflow end of the pipe is kept elevated 15-20 cm above the deposit. The pipe sections are joined or detached as needed by a crane with wide caterpillar treads. For ease in fitting and to allow uninterrupted flow of pulp each pipe section has one widened funnel-shaped end. States that number of man-days required for 1,000 cu m of hydraulic fill was reduced from 22 (scaffolding method) to 5-6 (without scaffolding). Also results in 1,400-1,500 cu m of lumber saved per 1 million cu m of fill.

FOGEL'SON, S. B.

(3)

246T35

FOGEL'SON, S.B., inzhener, laureat Stalinskoy premii

Development of hydraulic earthwork methods in building hydraulic structures. Mekh. trud. rab. 9 no.4:5-8 Ap '55. (MLRA 8:7)
(Hydraulic engineering) (Earthwork)

112-57-7-14209

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1957, Nr 7, p 62 (USSR)

AUTHOR: Fogel'son, S.B.

TITLE: New Engineering Achievements in Building Hydroelectric Stations (Novyye tekhnicheskiye dostizheniya v stroitel'stve gidroelektrostantsiy)

PERIODICAL: Tr. 2-go nauch. -tekhn. soveshchaniya po proyektir. i str-vu gidroelektrostantsiy. M. -L. (Transactions of the Second Scientific and Engineering Conference on Designing and Building of Hydroelectric Stations), 1956, pp 85-99

ABSTRACT: Hydromechanization has come into wide usage in recent years. New high-power equipment for hydraulic sluicing of dams, etc., has been constructed and put into operation in Mingechaur, Kama, Kuybyshev, Stalingrad, Kakhovka, and other hydroelectric developments. Dredge pumps with capacities up to 10,000 m^3 of pulp per hour have been used. The total capacity of available dredge pumps has reached 270,000 m^3 of pulp per hour. However, use of dredging devices is far from adequate because of the low level of auxiliary work. Heavy wear of equipment, fittings, and pipes by handling gravel and sand masses causes considerable outages. The technology of handling coherent

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New Engineering Achievements in Building Hydroelectric Stations

soils with dredging devices has not yet been solved in practice. At present, specifications are being worked out on dredging equipment for hydropower developments. The no-trestle method of hydraulicking has been fully mastered for gravel-and-sand soils and coarse-and medium-grained sands, and construction work can be performed along the entire front of the installation in question. Working soil by floating dredging devices has been widely used. Underwater winter hydraulicking, which has been proven possible, constitutes only a small part of the hydraulic sluicing of dams. Overwater hydraulicking constitutes a considerably greater part of the entire work, and a rational technology of this type of work, for use in winter, should be developed experimentally at a construction-project site. Availability of new high-power equipment necessitates considering the most productive and economical methods of building works in the design of stations.

A.Yu.F.

BELYAKOV, A.A.; KRISTOV, V.S.; DEMENT'YEV, M.A.; BORODIN, P.V.; FOGEL'SON, S.B.; PLATONOV, V.A.; IORISH, Ye.L.; GAL'PERIN, R.S.

Letter to the editors. Gidr. stroi. 26 no.4:52-53 Ap '57. (Dams) (MLRA 10:6)

8(6), 14(10)

SOV/112-59-4-6751

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 4, p 50 (USSR)

AUTHOR: Fogel'son, S. B.

TITLE: Hydraulic Sluicing in Hydro-Power Constructions

PERIODICAL: V sb.: Energ. str-vo SSSR za 40 let. M.-L., Gosenergoizdat, 1958, pp 130-142

ABSTRACT: The history of earthwork by hydraulic sluicing is described, beginning from 1927 when as much as 1,000,000 m^3 of soil was moved by this method at Dneprostroy. Recently, the share of earthwork done at the largest projects of the country by this method reached 98-99%, with the total amount of work going as high as 103,500,000 m^3 (Kuybyshev hydroelectric station). Modern dredges are described, as well as their capacities, procedures, engineering and economic characteristics of hydrolicking, and the participation of research institutes in perfecting the hydrolicking methods.

A.A.K.

Card 1/1

FOGEL'SON, S.B.

10(4) SOV/98-59-7-21/22

AUTHOR: Rozinoer, I.Y., Chairman

TITLE: Conference on Scientific Research in the Field of Hydromechanics

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 7, pp 62-65 (USSR)

ABSTRACT: The article is a chronicle of the above-named conference, which was held in Moscow from April 15-17, 1959, on the initiative of the coordinatory commission for hydromechanization in the Council for Hydraulic Affairs of the Academy of Sciences of the USSR. The All-Union NSES Hydromechanization Trust, the Mining Institute of the Academy of Sciences of the USSR and the Moscow oblast board of the Technological Department of the construction industry also participated in the organization of the conference, which was attended by more than 400 representatives of 149 organizations, including the Office of State Construction of the USSR, ministries, national economic councils, institutes of the Academy of Sciences of the USSR and the union republics, the ASiA of the USSR and the Ukrainian SSR, the

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Academies of Agricultural Science and the GNTK of the union republics, and official scientific and research institutes. The conference was opened by Academician A.M. Terpigorev, and at the plenary session papers were read by the following: Prof. A.P. Yufin, Doctor of Technical Sciences: "The State of Scientific Research Work in the Field of Hydromechanization"; Engineer V.A. Platanov: "The Construction of Alluvial Dams and the Work of Scientific Organizations"; Engineer N.A. Gorin: "The Present State of and the Outlook for Design and Research Work in the Field of Equipment for Hydromechanization"; Engineer S.B. Fogel'son: "Certain Problems of the Economy of the Hydromechanisation of Earth Works"; Prof. G.A. Nurok, Doctor of Technical Sciences: "The Present State of and the Outlook for the Development of the Hydromechanization of Opencast Coalmining"; Engineer B.M. Shkundin: "Means of Perfecting Hydromechanization in the Non-Metallic Mineral Industry." The remainder of the

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conference was divided into 3 sessions: on technology, equipment and transport. At the session dealing with technology papers were read by the following: Prof. N.N. Maslov, Doctor of Technical Sciences: "Certain Problems in the Planning of Alluvial Dams"; P.L. Ivanov, Candidate of Technical Sciences (Institute of Mechanics of the Academy of Sciences of the USSR): "Peculiar Features of the Dilution and Compression of Sand Foundations"; P.D. Lobasov, Candidate of Technical Sciences (VNIIGS): "Piecemeal Alluvial Construction"; V.A. Melentyev, Candidate of Technical Sciences (B.E. Vedeneyev VNIIG) and V.P. Spiridin, Candidate of Technical Sciences (Institute of Mechanics of the Academy of Sciences of the USSR): "The Consolidation and Compression of the Foundations of the Key Parts of Earth Dams"; K.P. Kolpashnikov (GISI): "Research on Alluvial Construction by Means of Cohesive Foundations"; M.P. Kuzmingy, Candidate of Technical Sciences: "The Hydraulic Construction of Earthworks by Means of Loess Foundations"; B.A. Volnin (V.V. Kuybyshev MISI): "The Alluvial Construction

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of the Sary-Yazynak dam on the Murgab River by Means of Fine-Grained Sand"; I.Ya. Rusinov, Candidate of Technical Sciences (A.F. Mozhaisky VVIA): "Research into the Morphological Peculiarities of Sand Foundations"; Engineer I.A. Shneyer (SAOGIDEP) and N.I. Yakovlev (VNIIGIM): "Formulae for the Determination of the Angle of Inclination of Earth Foundations"; N.V. Zolotarev, Candidate of Technical Sciences: "A Method of Calculating the Thawing Rate of Frozen Foundations on the Upper Slope of Sand Dams when Constructed in Winter"; D.L. Melamut, Candidate of Technical Sciences (VNIIGIM), and Engineer K.P. Kopiyevskiy (GNTK of the Moldavian SSR): "Problems of Spanning Rivers Without the Use of Bankets";

SUTIN, I.A., BENDERSKAYA, Yo.A. POLYAKOVA, I.L., MAYMAN, Z.I., EPSHTEYN, P.V. FOGEL'SON, T.A.

Epidemiology of diphtheria of nutritional origin. Zhur.mikrobiol. epid. i immun. 29 no.9:55-59 S'58 (MIRA 11:10)

1. Iz Stalingradskogo instituta epidemiologii, mikrobiologii i gigiyeny.

(DIPHTHERIAE, transm.
by ice cream (Rus))
(FOOD,
ice cream transm. of diphtheria (Rus))

9(4) SOV/112-58-3-4678

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1958, Nr 3, p 188 (USSR)

AUTHOR: Fogel'son, T. B.

TITLE: Hydrogen Thyratrons (Vodorodnyye tiratrony)

PERIODICAL: Tr. N.-i. in-ta. M-vo radiotekhn. prom-sti SSSR, 1957, Nr 4(40), pp 75-111

ABSTRACT: Ratings of hydrogen thyratrons manufactured by foreign companies are considered, as well as their functioning principles, construction, and application schemes. There are 12 types of thyratrons with a pulse power between 50-2,500 kw manufactured in the USA at present. In 1953, three high-power thyratrons were announced: 5949 (1907, 5948), 1754, and 1257, having pulse powers of 6.25, 12.5, and 33 Mw, anode voltages of 25, 25, and 33 kv, and anode currents of 500, 1,000, and 2,000 amp respectively. The following periods can be discerned in the discharge development: (1) the time between the grid-pulse start and the moment of the grid-voltage drop caused by grid current; the anode voltage remains constant over this period; (2) the time

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Hydrogen Thyratrons

between the moment of appearance of the grid current and the start of an appreciable anode current; (3) the time between the appearance of the anode current and the establishment of its final value, i.e., the switching time (10^{-7}-10^{-8} sec). The power released in the thyratron over the period of discharge formation constitutes 20-40% of the total power released in the device over the period of both formation and load current. Thyratron construction and subassemblies are described. The cathode temperatures used are: 730-750°C determined by the cathode emission capabilities through 850-860°C limited by barium vaporization; pulse-current densities are 8-10 amp/cm^2 for low-power thyratrons and 5-6 amp/cm^2 for high-power thyratrons. Because of the positive firing characteristic, thermionic currents are less dangerous to the hydrogen thyratron than to a conventional one; this permits operation with grid temperatures up to 350-370°C. Sectionalized anode lead-ins are recommended for higher voltages. This construction permits increasing the electric strength of the lead-in almost twice. Bibliography: 21 items.

M.F.Ya.

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FOGEL'SON, I.B.

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24(2)20 SOV/109-4-8-22/35

AUTHORS: Granovskiy, V.L., Luk'yanov, S.Yu., Spivak, G.V. and Sirotenko, I.G.

TITLE: Report on the Second All-Union Conference on Gas Electronics

PERIODICAL: Radiotekhnika i elektronika, 1959, Vol 4, Nr 8, pp 1339 - 1358 (USSR)

ABSTRACT: The conference was organised by the Ac.Sc.USSR, the Ministry of Higher Education and Moscow State University.

I.B. Fogel'son - "Methods of Reducing the Energy Lost in the Formation of a Breakdown".

L.I. Pivovar and V.I. Gordiyenko - "Microdischarges and pre-breakdown Currents Between Metal Electrodes in High Vacuum".

V.A. Simonov and G.P. Katukov - "Investigation of the Processes of Initiation and Development of a High-voltage Discharge in Vacuum".

E.M. Reykhrudel and G.V. Smirnitskaya - "The Characteristics of Ignition in High-vacuum in Magnetic Fields".

L.V. Tarasova et al. dealt with the transfer of the electrode material during the pre-breakdown stage in vacuum.

N.B. Rozanov et al. - "The Motion of Micro-particles of Substances During Electric Breakdown in Vacuum".

The third section dealt with the problems of electric sparks, corona and their practical applications. It was presided over by I.S. Stekol'nikov. The following papers were read:

V.I. Levitov et al. - "Probe Investigation of the a.c. Corona Fields".

G.N. Aleksandrov - "Elementary Processes in the Ionisation Zone of Corona-type Conductors at Atmospheric Pressures".

V.A. Burmakin - "Appearance of a Corona Discharge in Hydrogen and Nitrogen"

P.N. Chistyakov et al. - "Some Properties of the Corona Discharge in Hydrogen in Coaxial, Cylindrical System".

A.S. Soboleva and B.N. Klyarfel'd - "Appearance of Discharge Phenomena Between a Point and a Plane at Gas Pressures of 10^{-3} - 1.0 mm Hg".

Ya.Yu. Reymet et al. - "Methods of Unipolar Ionisation of Air By Means of Aero-Ionisers (see p 1335 of the journal).

M.P. Vanyukov et al. - "Time Spectra of the Radiation of a Spark Discharge in Inert Gases" (see p 1284 of the journal).

M.P. Vanyukov and A.A. Mak - "Production of High Temperatures by Means of Spark Discharges".

V.A. Poretyagin - "Influence of the Magnetic Field of the Electric Discharge on the Dividing Surface of Two Media".

I.S. Stekol'nikov - "New Data From the Study of Long Sparks".

M.I. Syapyev - "Properties of the Breakdown of Compressed Air in a Comparatively Uniform Field in the Presence of Localised Non-uniformities".

A.A. Vorob'yev et al. - "Pulse and Oscillographic Techniques for the Measurement of the Discharge Lags in Dielectrics" (see p 1257 of the journal).

A paper by B.N. Zolotykh dealt with the problem of the basic theory of the electric erosion (see p 1330 of the journal).

The fourth section was presided over by S.Yu. Luk'yanov and was concerned with the non-stationary and low-frequency discharges. The following papers were read:

I.G. Nekrashevich and A.A. Labud - "The Nature of the Current Interruption During the Electric Explosion of a Metal Wire".

V.A. Simonov - "Propagation of Plasma From Local Pulse Sources".

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G.G. Timofeyev et al. - "Observation of an Electro-dynamically Compressed Arc By Means of an Electron-optical Converter".

M.S. Ioffe and Ye.Ye. Yushmanov - "Investigation of the Radial Electric Field in an Ion Magnetron".

V.A. Belyayev and M.K. Romanovskiy - "Experiments with an Electron Model of a System with Magnetic Samples".

A.M. Andrianov et al. "Distribution of Magnetic and Electric Fields in Powerful Pulse Discharges".

G.N. Harding (England) - "Spectroscopic Determination of the Plasma Temperature in the "Zeta" Equipment" (see p 1326 of the journal).

The paper by Harding aroused a lot of interest and Academician L.A. Artsimovich expressed the opinion that the electrons and ion temperatures in the "Zeta" should be of the same order; instead, according to Harding, the electron temperature is lower by an order than that of the ions.

FOGEL'SON, Ye. I. DECEASED

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FERROUS METALS

Z/009/61/000/008/003/005
E112/E153

AUTHORS: Kalafut Št. and Fogltanc, M.

TITLE: The effect of modifiers on viscose gel formation

PERIODICAL: Chemický průmysl, 1961, No.8, pp. 433-438

TEXT: The present paper deals with modifications of the regeneration behaviour of cellulose, produced by the addition of modifiers. Their function is the slowing down of xanthate decomposition, in order to prolong the period when effective stretch and orientation may be applied. The mechanism of viscose regeneration in the presence of a modifier in a zinc spin bath is discussed. The modifier markedly affects the comparative penetration rates of the zinc and the acid components of the spin bath. Zinc cellulose xanthate formation is much more extensive and can actually occur throughout the entire filament ahead of acid in regenerating concentration. Because the decomposition of the zinc cellulose xanthate is considerably slower than that of the sodium xanthate, the overall regeneration is markedly decelerated, and a fairly discrete zinc xanthate zone is established. The action of the modifier is in effect that of a selective sieve permitting

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passage of zinc ahead of acid. The viscose-making process converts the cellulose raw material into the alkali-soluble sodium cellulose xanthate. Upon extrusion into the acid bath this salt is converted into the cellulose xanthic acid and sodium sulphate. It is the primary object of this paper to investigate the effects of sodium sulphate upon the solubility characteristics of two typical modifiers, namely polyethylene glycoles and N-methylcyclohexylamine under neutral, alkaline and acidic conditions. It is proposed that sodium sulphate acts as a salting-out agent on both modifiers, promoting their separation as fine precipitates on the fibre surface and retarding the diffusion of sulphuric acid. The retarding of the overall regeneration process results in the spinning filament being in a plastic and stretchable state for a considerably longer period of time than in the normal spinning process. The authors have also established that a subsequent treatment with zinc ions of fibres which were coagulated in absence of zinc sulphate failed to retard gel formation or neutralisation times. Cross-sections of the fibres were inhomogeneous, even if modified viscose was used. Details of experimental procedure are

given as follows. 1) The solubility of the main types of modifiers in presence of Na_2SO_4 was determined under neutral, alkaline and acid conditions. 2) Main types of modifiers were reacted with CS_2 and solubilities of reaction products were determined in presence of Na_2SO_4, as under 1). 3) A number of the recommended modifiers with different solubilities in presence of salts were compared in their retarding action on gel formation, and cross-sectional photomicrographs were prepared. 4) Primary and secondary diffusion rates of zinc ions were determined. Results were assessed generally by determining the D-values of the regenerated fibre according to procedure described in B.P. 762772. The following tables are submitted: 1) Solubilities of different modifiers in presence of Na_2SO_4 under neutral, alkaline and acid conditions; 2) Effect of zinc ions on modified viscose on first contact of the zinc bath with the forming fibre; and 3) Effects of zinc ions on modified viscose on secondary contact of fibre with the zinc bath. Cross-sections of fibres after use and without use of modifiers are shown. (Solophenyl Bluegreen BL was used to dye the cross-sections.) There are 6 figures, 3 tables and 7 references: 5 English, 1 German and 1 Swedish.

The effect of modifiers on viscose....

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E112/E153

ASSOCIATION: Výskumný ústav chemických vláken, Svit (Research Institute for Synthetic Fibres, Svit)

SUBMITTED: February 13, 1961

The four most recent English language references read:

Ref.1: Text. Res. J. 1959/I.32
Ref.4: Austr. patent 209 820, 209 821
Ref.6: BP 652 741, 652 746, 654 083, 741 727, 741 728, 762 772.
Ref.7: USP 2 515 834, 2 515 889.

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S/020/61/137/003/028/030
B103/B208

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AUTHORS: Svetlov, B. S., and Fogel'zang, A. Ye.

TITLE: Burning of lead styphnate

PERIODICAL: Doklady Akademii nauk SSSR, v. 137, no. 3, 1961, 654-655

TEXT: The authors studied the burning of initiating explosives, particularly of lead styphnate (Pbst). Contrary to other initiating explosives (mercury fulminate, trinitrotriazobenzene) which burn very quickly and steadily in pressed state, the burning rate of Pbst could not be studied in spite of a high pressing density, because the charge exploded. Only by adding large quantities of other substances these charges burned with high velocity. Pbst was pressed with a pressure of 5000 kg/cm^2 into plexiglass tubes (thickness of the wall 2 mm, inside diameter 4 mm). In this way, a steady and uniform burning of Pbst was attained over the entire length of the charge. The authors studied the dependence of the burning rate on the pressure in a wide range. Burning was recorded by a photographic recorder. Fig. 1 illustrates the dependence mentioned above. The authors conclude therefrom that Pbst is able to burn even at

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Burning of lead styphnate

very low pressure. Its burning rate is very high even at 15 mm Hg (25-26 cm/sec). Pbst burns vigorously and with an explosion-like noise, although the tube, as a rule, remains intact, and the photographic recorder shows a constant burning over the entire length of charge. Bad pressing gives rise to an explosion after a comparatively short range of steady burning, the tube breaking into pieces. For comparison, Fig. 1 includes diagram (1) of the burning of lead picrate which does not burn at low pressure (below 20 kg/cm^2). In the range where lead picrate burns under the given conditions, it burns nearly 30 times more slowly than Pbst. The maximum difference is 10-15% at a pressure of more than 200 kg/cm^2. At atmospheric pressure, the burning rate of Pbst exceeds that of similar explosives by about 15-20 times. A rapid change from burning to detonation is not warranted by a high burning rate alone. There are 2 figures and 3 Soviet-bloc references.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut im. D. I. Mendeleyeva (Moscow Institute of Chemical Technology imeni D. I. Mendeleyev)

SVETLOV, B.S.; FOGEL'ZANG, A.Ye.

Pulsating combustion of iron picrate. Vzryv. delo no.52/9: 221-225 '63. (MIRA 17:12)

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